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09/641,512	08/18/2000	Daisuke Tsukahara	1163-0286P	7943

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EXAMINER

BOWES, SARA E

ART UNIT	PAPER NUMBER
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2136

DATE MAILED: 03/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/641,512

Applicant(s)

TSUKAHARA ET AL.

Examiner

Sara Bowes

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3, 4, 5, 6.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Information Disclosure Statement

The information disclosure statement filed August 18, 2000 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-5, 7, 10, 12, and 14-20 are rejected under 35 U.S.C. 102(a and e) as being anticipated by U.S. Patent No. 6,157,719 to Wasilewski et al.

Referring to claim 1, Wasilweski et al. teach a conditional access system comprising:

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- a demultiplexer for demultiplexing a packet stream transmitted from a transmitting site into encrypted coded media data, an ECM (Entitlement Control Message) and an EMM (Entitlement Management Message) [figures 1 and 2B];
- an EMM decryption section for retrieving work keys and subscriber contract information from the EMM extracted by said demultiplexer [column 4, lines 56-58 and lines 64-66]];
- means for retrieving partial-viewing authorization information included in one of the EMM and ECM extracted by said multiplexer [figure 22, FREE PREVIEW 2219];
- an ECM decryption section for decrypting the ECM using the work keys, and for retrieving scrambling keys from the ECM [column 4, lines 50-54]; and
- outputting means for descrambling and decoding part of the coded media data using the scrambling keys when the partial viewing authorization information permits partial viewing, and for outputting the partially decoded coded media data [figure 1].

Referring to claim 2, Wasilweski et al. teach the conditional access system according to claim 1, wherein said ECM decryption section comprises:

- means for intermittently retrieving the scrambling keys from the ECM when the subscriber contract information inhibits viewing and the partial viewing authorization information permits partial viewing [column 7, lines 16-19 and figure 22], and wherein said outputting means comprises:

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- a media data descrambling section for descrambling the coded media data using the scrambling keys retrieved by said ECM decryption section [column 7, lines 12-15]; and
- a decoding section for decoding the coded media data descrambled by said media data descrambling section [column 7, lines 20-24].

Referring to claim 3, Wasilewski et al. teach the conditional access system according to claim 2, wherein, said means for intermittently retrieving the scrambling keys comprises:

- a decryption validity decision section for outputting decryption control information in response to the subscriber contract information and the partial viewing authorization information [column 15, lines 58-61]; and
- a decryption processor for intermittently retrieving the scrambling keys from the ECM in response to the decryption control information when the subscriber contract information inhibits viewing and the partial viewing authorization information permits partial viewing [column 7, lines 16-19 and figure 22].

Referring to claim 4, Wasilewski et al. teach the conditional access system according to claim 2, wherein said means for intermittently retrieving the scrambling keys comprises:

- a decryption processor for retrieving all scrambling keys included in the ECM [figure 2B, DECRYPT 234];

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- a scrambling key output validity decision section for outputting output control information in response to the subscriber contract information and the partial viewing authorization information [column 39, lines 11-13]; and
- an output controller for supplying said media data descrambling section with only part of the scrambling keys in response to the output control information when the subscriber contract information inhibits viewing and the partial viewing authorization information permits partial viewing [column 36, lines 3-5].

Referring to claim 5, Wasilewski et al. teach the conditional access system according to claim 1, wherein said outputting means comprises:

- a media data descrambling section for intermittently descrambling the coded media data using the scrambling keys when the subscriber contract information inhibits viewing and the partial viewing authorization information permits partial viewing [column 7, lines 16-19 and figure 22]; and
- a decoding section for decoding the coded media data descrambled by said media data descrambling section [figure 2B, decoder 240].

Referring to claim 7, Wasilewski et al. teach the conditional access system according to claim 1, wherein said outputting means comprises:

- a media data descrambling section for descrambling the coded media data using the scrambling keys retrieved by said ECM decryption section [column 7, lines 12-15]; and

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- a decoding section for intermittently decoding the coded media data descrambled by said media data descrambling section, when the subscriber contract information inhibits viewing and the partial viewing authorization information permits partial viewing [figure 2B and column 36, lines 3-5].

Referring to claim 10, Wasilewski et al. teach the conditional access system according to claim 7, wherein said decoding section comprises:

- a decoding process the coded media data descrambled by said media data descrambling section [column 7, lines 12-15]; and
- a media display controller for supplying only part of the descrambled coded media data to a television receiver when the subscriber contract information inhibits viewing and the partial viewing authorization information permits partial viewing [figure 2B and column 36, lines 3-5].

Referring to claim 12, Wasilewski et al. teach the conditional access system according to claim 1, wherein said EMM decryption section comprises means for intermittently retrieving work keys from the EMM when the subscriber contract information inhibits viewing and the partial viewing authorization information permits partial viewing, wherein said ECM decryption section decrypts the ECM using the work keys and retrieves scrambling keys from the ECM, and wherein said outputting means comprises:

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- a media data descrambling section for descrambling the coded media data using the scrambling keys retrieved by said ECM decryption section [column 7, lines 12-15]; and
- a decoding section for decoding the coded media data descrambled by said media data descrambling section [column 7, 20-24].

Referring to claim 13, Wasilewski et al. teach the conditional access system according to claim 12, wherein said means for intermittently retrieving work keys comprises:

- a decryption validity decision section for outputting decryption control information in response to the subscriber contract information and the partial viewing authorization information [column 15, lines 58-61];; and
- a decryption processor for retrieving only part of the work keys from the EMM in response to the decryption control information when the subscriber contract information inhibits viewing and the partial viewing authorization information permits partial viewing [figure 2B, DECRYPT 234].

Referring to claim 14, Wasilewski et al. teach the conditional access system according to claim 12, wherein said means for intermittently retrieving work keys comprises:

- a decryption processor for retrieving all the work keys included in the EMM [figure 2B, DECRYPT 234];

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- a work key output validity decision section for outputting output control information about the work keys in response to the subscriber contract information and the partial viewing authorization information [column 16, lines ; and
- a work key output controller for supplying only part of the work keys to said ECM decryption section in response to the output control information when the subscriber contract information inhibits viewing and the partial viewing authorization information permits partial viewing [column 16, lines 3-8].

Referring to claim 15, Wasilewski et al. teach the conditional access system according to claim 1, wherein the partial viewing authorization information includes a control parameter indicating a partially authorized viewable range [figures 26 and 27].

Referring to claim 16, Wasilewski et al. teach the conditional access system according to claim 1, wherein the partial viewing authorization information consists of information authorizing viewing only for a specific time period [column 37, lines 18-21].

Referring to claim 17, Wasilewski et al. teach the conditional access system according to claim 1, wherein the subscriber contract information that includes information authorizing partial viewing is used as the partial viewing authorization information [column 36, line 63 - column 37, line 1].

Referring to claim 18, Wasilewski et al. teach the conditional access system according to claim 1, wherein the EMM is used into which the work keys are inserted only for specific time periods [column 4, lines 62-63].

Referring to claim 19, Wasilewski et al. teach the conditional access system according to claim 1, wherein said demultiplexer and said decoding section are based on the MPEG-2 standard [figure 2A].

Referring to claim 20, Wasilewski et al. teach the conditional access system according to claim 1, wherein when a plurality of programs are multiplexed into the packet stream transmitted from the transmitting site, authorization, partial authorization and inhibition of viewing the programs are determined for individual programs independently [column 2, lines 13-15].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

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were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,157,719 to Wasilewski et al.

Referring to claim 6, Wasilewski et al. teach the conditional access system according to claim 5, wherein said media data descrambling section comprises:

- a descramble validity decision section for outputting descramble control information alternately authorizing and inhibiting descrambling when the subscriber contract information inhibits viewing and the partial viewing authorization information permits partial viewing [column 37, lines 1-3];
- a descrambler for descrambling part of the coded media data in response to the descramble control information [figure 6, SD MODULE 625].

Wasilewski et al. do not explicitly teach a scramble control information modifier for handling part of the coded media data which is not descrambled as unencrypted data.

However, Wasilewski et al. teach a Secure element (DHCTSE 627 of figure 6) interprets the ECMs and EMMs and decrypts the portion of the service that is authorized [column 15, line 60-61]. The DHCTSE also includes a tamper-proof memory that only DHCTSE can access [column 16, lines 1-3]. In the ECMs, a flag is set if a free

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preview is permitted and only a portion of the service is descrambled, so the still scrambled portion of the service could be stored in DHCTSE's memory.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the memory included in the DHCTSE to handle the portion of the media data that was not descrambled. One would have been motivated to use Wasilewski et al. as such to provide for a storage device for the services that were not subscribed to thus not descrambled.

Claim 8, 9, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,157,719 to Wasilewski et al. in view of GB 2297017 to Andrew et al.

Referring to claim 8, Wasilewski et al. teach the conditional access system according to claim 7, wherein said decoding section comprises:

- a decoding validity decision section for outputting decoding control information in response the subscriber contract information and the partial viewing authorization information [column 15, lines 41-43].

Wasilewski et al. do not teach a decoding processor for decoding only part of frames in a frame sequence constituting the coded media data in response to the decoding control information when the subscriber contract information inhibits viewing and the partial viewing authorization information permits partial viewing.

However, Andrew et al. disclose a decoding processor for decoding only part of frames in a frame sequence constituting the coded media data in response to the

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decoding control information when the subscriber contract information inhibits viewing and the partial viewing authorization information permits partial viewing.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Andrew et al.'s teaching of decoding only part of frames in a frame sequence to the system and method of Wasileski et al., such that SD MODULE 625 of figure 6 of Wasilewski et al. would perform partial decryption of a frame sequence. One would have been motivated to modify Wasilewski et al.'s system as such in order to reduce the amount of decryption that needs to be performed thus significantly reducing processor usage.

Referring to claim 9, Wasilewski et al. as modified teach the conditional access system according to claim 8, wherein said decoding processor decodes only I frames in response to the decoding control information when the subscriber contract information inhibits viewing and the partial viewing authorization information permits, partial viewing [page 7, lines 14-20 of Andrew et al.].

Referring to claim 11, Wasilewski et al. teach the conditional access system according to claim 1, wherein said outputting means comprises:

- a media data descrambling section for descrambling the coded media data using the scrambling keys retrieved by said ECM decryption section [column 7, lines 12-15].

Wasilewski et al. does not teach a decoding section for decoding the coded media data descrambled by said media data descrambling section, for storing the decoded coded media data into a memory on a block by block basis, and for outputting the blocks with changing their sequence when the subscriber contract information inhibits viewing and the partial viewing authorization information permits partial viewing.

However, Andrew et al. disclose a decoding section for decoding the coded media data descrambled by said media data descrambling section, for storing the decoded coded media data into a memory on a block by block basis, and for outputting the blocks with changing their sequence when the subscriber contract information inhibits viewing and the partial viewing authorization information permits partial viewing [page 7, lines 14-20].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Andrew et al.'s teaching to the system and method of Wasilewski et al., such that SD MODULE 625 of figure 6 of Wasilewski et al. would perform partial descrambling of a program. One would have been motivated to modify Wasilewski et al.'s system as such in order to allow for free previewing of a program but prevent unauthorized users from viewing the program in its entirety.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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U.S. Patent No. 5,442,701 to Guillou et al.;

U.S. Patent No. 5,742,681 to Giachetti et al.;

U.S. Patent No. 5,594,794 to Eyer et al.;

U.S. Patent No. 6,148,082 to Slattery et al.;


U.S. Patent No. 4,864,615 to Bennett et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sara Bowes whose telephone number is 703-305-0326. The examiner can normally be reached on 7:30-4:00, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R Sheikh can be reached on 703-305-9648. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

seb
2/27/2004


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